

ABSTRACT OF THE DISCLOSURE

A communication network design circuit can derive a path and a necessary link capacity for multiple point communication
5 service permitting arbitrary communication within a predetermined range of communication amount by providing traffic amount of data in-flowing through an ingress node and traffic amount of data flowing out through an egress node. The communication network designing circuit has setting means for
10 setting a mathematical programming problem for deriving the multiple point communication service and optimizing means for solving the mathematical programming problem set by the setting means and obtaining the path for the multiple point communication service.